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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER				
RALJS, STEPHEN J				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,711

Applicant(s)

O'NEILL, NOEL

Examiner

STEPHEN J. RALIS

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Applicant is respectfully requested to provide a location within the disclosure to support any further amendments to the claims due to when filing an amendment an applicant should show support in the original disclosure for new or amended claims. See MPEP § 714.02 and § 2163.06 ("Applicant should specifically point out the support for any amendments made to the disclosure.").

Response to Arguments

3. In lieu of the new ground of rejection, applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 2-10 and 12-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, the recitation of "heating means disposed in the housing operative to draw air into the housing, heat the air and expel the heated air" in lines 5-6 renders the claim indefinite because the word "means" is preceded by the word(s) "heating" in an

attempt to use a "means" clause to recite a claim element as a means for performing a specified function such as "heating" or "heat". However, since no structural and operational limitations are specified to provide the function of "draw air into the housing" and "expel the heated air", it is unclear to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967). Claim 2 also appears to be incomplete for omitting essential elements in order to provide the recited "heating means" such "draw air into the housing", "heat the air", and "expel the heated air", such omission amounting to a gap between the elements. See MPEP § 2172.01.

In claim 10, the phrase "may be seen in the viewing room" recited in lines line 7 renders the claim indefinite for not being a positive recitation. It is suggested to replace "may be" with "is seen". In addition, claim 10, recites the limitation "means for producing moving beams of light directly and/or indirectly onto the viewing screen...". The phrase "and/or" is indefinite per se and therefore should have been changed to "and" since it is unclear to whether the beams of light are produced directly onto the viewing screen, or produced indirectly onto the viewing screen, or produced both directly and indirectly onto the viewing screen. It makes the claimed scope uncertain.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

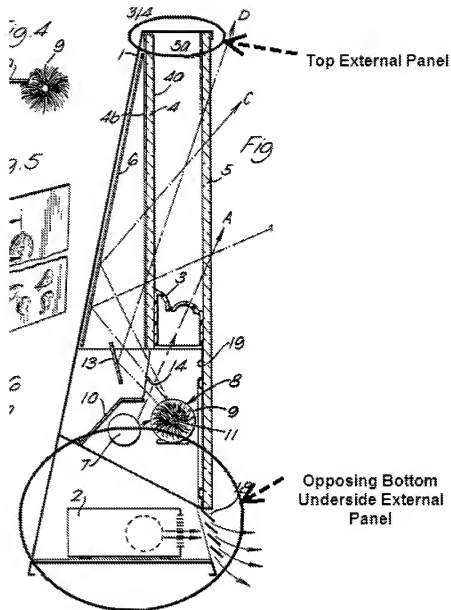
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 2, 4, 8 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Neill (United Kingdom Publication No. 2298073A).

O'Neill'073 discloses a flame effect electric fire comprising: a housing (outer casing 1) having at least first and second opposing side panels (see Figures 1, 2), a top external panel (see Figures 1-3) and an opposing bottom underside external panel and the first side panel being adapted to be mounted on a substantially plane wall; heating means disposed in the housing operative to draw air into the housing, heat the air and expel the heated air (fan heater 2); and a flame simulating assembly mounted in the housing (simulated fuel 3); and comprising: a light source (light source 7); a viewing screen capable of diffusing and transmitting light (screen 4; page, 7 lines 18-35); a rear reflecting means disposed behind the viewing screen (reflecting panel 6; page 9, line 33 – page 10, line 19); and means for producing moving beams of light (rotor 8 which is mounted foil strips 9; page 7, lines 10-16; page 8, lines 18-25; page 10, lines 21-32), the light source being disposed below the reflecting means and behind the viewing screen (see Figure 3), the means for producing moving beams of light (indirectly –see Figure 3) is disposed in front of the light source and below the screen and light from the light source is reflected by the means for producing moving beams of light onto the reflecting means and is reflected by the reflecting means onto the screen to produce a perceptible image viewable on the screen (see Figure 3), and wherein the heating means expels air in a generally vertically downwardly direction through an air expulsion aperture in the underside external panel of the housing (see Figure 3).

With respect to the limitation of “a top external panel and an opposing bottom underside external panel” and “wherein the heating means expels air in a generally vertically downwardly direction through an air expulsion aperture in the underside external panel of the housing”, O’Niell’073 discloses a top external panel (see annotated Figure 3 of O’Niell’073 below) that has as an opposing bottom underside external panel in the combination of panel holding the fan heater (2) and directional elements (18) (see annotated Figure 3 of O’Niell’073 below). The combination of panel holding the fan heater (2) and directional elements (18) are opposing or *directly across* from the top external panel (see annotated Figure 3 of O’Niell’073). Therefore O’Niell’073 fully meets “a top external panel and an opposing bottom underside external panel” and “wherein the heating means expels air in a generally vertically downwardly direction through an air expulsion aperture in the underside external panel of the housing” given its broadest reasonable interpretation.



O'Neill'073 further discloses the light from the light source being prevented from falling directly onto the viewing screen by means of a baffle (shield 10) mounted above the light source (page 9, lines 17-22; see Figure 3); the rear reflecting means comprising a sheet of material having reflecting regions and non-reflecting regions, the regions being generally flame shaped and the rear reflecting means having a concave

reflecting surface (page 10, lines 14-19); the simulated fuel bed being disposed directly in front of the diffusing and transmitting screen (see Figure 3); and the screen comprising a reflective front surface configured such that a reflection of the fuel bed can be seen in the screen (page 7, lines 18-22).

With respect to the limitation of "adapted to be mounted on a substantially plane wall", the proposition of "adapted to" is being deemed functional language and if a reference has the structure and the controllability to perform the operation, the reference is complete as detail, please refer to MPEP §2111.04, ("Claim scope is not limited by claim language that does not limit a claim to a particular structure"; i.e. usage of "adapted to"; "configured to" being an equivalent is definition). Therefore, it is deemed that the structure of O'Neill'073 (outer casing 1 and all of its structure) has the structure and controllability to perform the operation of being mounted on a substantially plane wall.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 3, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill (United Kingdom Publication No. 2298073A) in view of O'Neill (United Kingdom Publication No. 2372807A) and Fukue (Japanese Patent No. JP 06290762).

O'Neill'073 discloses all of the limitations of the claimed invention, as previously set forth, except for the light source comprising at least one halogen bulb or tungsten filament bulb having a maximum external dimension of not more than about 40mm; the light source having a width of not more than about 35mm; and the light source having a width of not more than about 15mm.

However, the light source comprising at least one halogen bulb or tungsten filament bulb is known in the art. O'Neill'807 teaches a simulating flame assembly comprising a halogen lamp (14) to provide a low voltage light source (5 watts; page 2, lines 24-26), allowing the flame simulating device to operate at relatively low voltages (page 2, lines 6-8), thereby providing a more electrically safe flame simulating device (page 1, lines 27).

Similarly, halogen bulbs having a maximum external dimension of not more than 40mm and having a width of not more than 15mm and 35 mm is known in the art. Fukue, for example, teaches a halogen bulb having a maximum external dimension of not more than 40mm (maximum dimension is the diameter being in the range of 12mm to 18mm and the width being 6mm to 10mm; English Constitution translation) to provide

an effective region of an infrared reflecting while still satisfying the operational requirements, thereby providing a more desired halogen light source.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the light source of O'Neill'073 with the halogen light source of O'Neill'807 in order to provide a low voltage light source, allowing the flame simulating device to operate at relatively low voltages, thereby providing a more electrically safe flame simulating device. Similarly, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify O'Neill'073 in view of O'Neill'807 with the maximum external dimension of not more that 40mm and having a width of not more than 15mm and 35mm of Fukue in order to provide an effective region of an infrared reflecting while still satisfying the operational requirements, thereby providing a more desired halogen light source.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill (United Kingdom Publication No. 2298073A) in view of McDonald et al. (United Kingdom Publication No2276444A).

O'Neill'073 discloses an additional reflector being disposed behind the centerline of the light source to reflect light beams at a different angle (auxiliary reflector 13; page 9, lines 8-12; see Figure 3), however, O'Neill'073 discloses all of the claimed limitations, as previously set forth, except for the additional reflector being completely behind the light source.

However, an additional reflector being completely behind the light source is known in the art. McDonald et al., for example, teach a illumination light source (7) being disposed in-between a rear reflector (shaped second reflector 3; page 4, lines 11-23; see Figure 1) and an additional reflector (primary source reflector 6; page 6, lines 15-23; see Figure 1) to provide an insulative or cooling effect for various components and to further provide light paths of a specific directionality, thereby improving the safety and visual effect of the flame simulating apparatus. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the additional reflector means of O'Niell'073 the light source in-between the rear reflector and additional reflector configuration of McDonald et al. in order to provide an insulative or cooling effect for various components and to further provide light paths of a specific directionality, thereby improving the safety and visual effect of the flame simulating apparatus.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill (United Kingdom Publication No. 2298073A) in view of Cornell (U.S. Patent No. 2,984,032) and MacPherson et al. (U.S. Patent No. 6,269,567).

O'Neill'073 discloses all of the claimed limitations, as previously set forth, except for the shaft being driveably connected at a first end thereof to a drive means for rotation of the shaft and being retained at a second end thereof in a supporting bracket, *the supporting bracket having a slot therein adjacent the second end of the shaft, the first end of the shaft being configured to be retained by the flexible bushing when the*

second end is released from the supporting bracket via the slot in the supporting bracket, and the shaft being displaceable from an operative position thereby to permit access to the light source; and the shaft being connected to the drive means via a flexible bushing and the second end of the shaft is releasably mounted in the bracket, the shaft being displaceable when desired by flexure of the flexible bushing.

However, a simulated flame apparatus having a motor connected to a shaft via a flexible bushing on one end and having the shaft releasably connected to a support bracket on the other end, as described by Cornell, is known in the art. Cornell teaches an artificial fireplace apparatus comprising a drive means comprising a motor (34) mounted to a drive shaft (38), which extends inwardly through support leg (28). In addition, Cornell teaches a main shaft (32) being coupled to the drive shaft (38) on a first end via a resilient sleeve (40) made of rubber or the like with the shaft (32) extending through the apparatus to a second end in a support bracket being held by a suitable bearing (36). Cornell further teaches that such a configuration provides a simple assembly, making it possible to make any necessary repairs or replacements (column 2, lines 33-43), thereby allowing the shaft to be disconnected without the use of any tools and easing maintenance thereof.

Similarly, a supporting bracket having a slot therein adjacent the second end of a shaft is known in the art. MacPherson et al., for example, teach a rod (81) being supported at one end in corresponding recesses (84) defined in a vertical support arm (86) (column 4, lines 38-42; see Figure 3). It is known in the art that such recesses are provided to easily remove the rod when necessary.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the motor/shaft coupling of O'Neill'073 with the flexible coupling mechanism of Cornell to provide a simple assembly, making it possible to make any necessary repairs or replacements, thereby allowing the shaft to be disconnected without the use of any tools and easing maintenance thereof. It would have further been obvious to one of ordinary skill in the art at the time of the invention was made to modify O'Neill'073 with recesses provided in the supporting shaft of MacPherson in order to provide a means to easily remove the rod when necessary as is known in the art.

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill (United Kingdom Publication No. 2298073A) in view of Conroy et al. (U.S. Patent No. 3,742,189).

O'Neill'073 discloses all of the claimed limitations, as previously set forth, except for a mounting means for mounting the flame effect fire on a wall.

However, simulated heated fireplace assembly comprising mounting means for mounting simulated heated fireplace assembly on a wall is known in the art. Conroy et al., for example, teach an electric heated simulated fireplace assembly (12) that may be adapted for mounting within a larger receptacle which in turn is then mounted to the wall of a room; the corner thereof (column 4, lines 52-62) to provide a simulated fireplace assembly that may be used in many different rooms in a residence as well as in commercial establishments, thereby providing a more versatile apparatus to enhance

and give pleasant atmosphere to the surroundings (column 1, lines 9-27). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the structure of O'Neill'073 with a wall mounting receptacle, as taught by Conroy et al., in order to provide a simulated fireplace assembly that may be used in many different rooms in a residence as well as in commercial establishments, thereby providing a more versatile apparatus to enhance and give pleasant atmosphere to the surroundings.

14. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill (United Kingdom Publication No. 2298073A) in view of Edwards et al. (U.S. Patent No. 5,334,818).

O'Neill'073 discloses all of the claimed limitations, as previously set forth, except for an air intake aperture in the underside external panel of the housing and the heating means being configured to draw air into the housing through the air intake aperture in the underside external panel of the housing.

However, an air intake in the underside of a housing and the heating means being configured to draw air into the housing via the air intake is known in the art. Edwards et al., for example, teach an electrical heating element arrangement for an air flow heater (Title) comprising a housing including a fan (11) mounted for rotation about an axle (12) so that air is drawn from the underside of the fan and expelled radially outwardly into the housing (column 3, lines 20-27). Edwards et al. further teach that such a configuration provides a means for the air from the fan to pass over the heating

elements of the heating assembly before exiting from the housing through nozzle (13) (column 3, lines 31-34), thereby improving the overall operational efficiency of the heater assembly. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the fan heater assembly of O'Neill'073 in view of Hess with the air intake on the underside of the housing/assembly in order to provide a means for the air from the fan to pass over the heating elements of the heating assembly before exiting from the housing through nozzle (13) (column 3, lines 31-34), thereby improving the overall operational efficiency of the heater assembly.

With respect to the limitation of an air intake aperture in the underside external panel of the housing and the heating means being configured to draw air into the housing through the air intake aperture in the underside external panel of the housing, O'Neill'073 explicitly discloses a fan heater (2) mounted and functioning in the underside portion/panel of the main simulating flame apparatus with the air expulsion aperture (grille 18) expelling air generally vertically downwardly direction through the air expulsion aperture (grille 18) of the underside external portion/panel of the main simulating flame apparatus of the housing (1). Edwards et al. explicitly teach the necessity and requirement for a fan heater apparatus to have air being drawn from the underside of the fan (11). Clearly with the requirement for air to be drawn from the underside of the fan (11) of Edwards et al. and with the existing structure of O'Neill'073, the combination structure would require an air take aperture in the underside external portion/panel of the main simulating flame apparatus of O'Neill'073 to accommodate the air being drawn for the underside of the fan (11) of the fan heater or the fan heater

apparatus would not function properly. Therefore since O'Neill'073 discloses a fan heater (2) mounted and functioning in the underside portion/panel of the main simulating flame apparatus with the air expulsion aperture (grille 18) expelling air generally vertically downwardly direction through the air expulsion aperture (grille 18) of the underside portion/panel of the main simulating flame apparatus of the housing (1) and Edwards teaches the necessity for air to be drawn from the underside of such heater which would require an air intake aperture in the structure, O'Neill in view of Edwards et al. fully meets "an air intake aperture in the underside external panel of the housing, wherein the heating means is configured to draw air into the housing through the air intake aperture in the underside external panel of the housing" given its broadest reasonable interpretation.

15. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill (United Kingdom Publication No. 2298073A) in view of Cornell (U.S. Patent No. 2,984,032).

O'Neill'073 discloses a flame effect electric fire having a flame simulating assembly mounted in the housing (simulated fuel 3) and comprising: a light source (light source 7); a viewing screen capable of diffusing and transmitting light (screen 4; page, 7 lines 18-35); a rear reflecting means disposed behind the viewing screen (reflecting panel 6; page 9, line 33 – page 10, line 19); and means for producing moving beams of light (rotor 8 which is mounted foil strips 9; page 7, lines 10-16; page 8, lines 18-25; page 10, lines 21-32), the light source being disposed below the reflecting means and

behind the viewing screen (see Figure 3), the means for producing moving beams of light (indirectly –see Figure 3) is disposed in front of the light source and below the screen and light from the light source is reflected by the means for producing moving beams of light onto the reflecting means and is reflected by the reflecting means onto the screen to produce a perceptible image viewable on the screen (see Figure 3).

O'Neill'073 discloses all of the limitations of the claimed invention, as previously set forth, except for the shaft being driveably connected at a first end thereof to a drive means for rotation of the shaft and being retained at a second end thereof in a supporting bracket, *the first end of the shaft being configured to be retained by the flexible bushing when the second end is released from the supporting bracket*, and the shaft being displaceable from an operative position thereby to permit access to the light source; and the shaft being connected to the drive means via a flexible bushing and the second end of the shaft is releasably mounted in the bracket, the shaft being displaceable when desired by flexure of the flexible bushing.

However, a simulated flame apparatus having a motor connected to a shaft via a flexible bushing on one end and having the shaft releasably connected to a support bracket on the other end, as described by Cornell, is known in the art. Cornell teaches an artificial fireplace apparatus comprising a drive means comprising a motor (34) mounted to a drive shaft (38), which extends inwardly through support leg (28). In addition, Cornell teaches a main shaft (32) being coupled to the drive shaft (38) on a first end via a resilient sleeve (40) made of rubber or the like with the shaft (32) extending through the apparatus to a second end in a support bracket being held by a

suitable bearing (36). Cornell further Teaches that such a configuration provides a simple assembly, making it possible to make any necessary repairs or replacements (column 2, lines 33-43), thereby allowing the shaft to be disconnected without the use of any tools and easing maintenance thereof. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the motor/shaft coupling of the O'Neill apparatus with the flexible coupling mechanism of Cornell to provide a simple assembly, making it possible to make any necessary repairs or replacements, thereby allowing the shaft to be disconnected without the use of any tools and easing maintenance thereof.

With respect to the limitation of the shaft being driveably connected at a first end thereof via a flexible bushing to a drive means operative to rotate the shaft and being releasably retained at a second end thereof in a supporting bracket, *the first end of the shaft being configured to be retained by the flexible bushing when the second end is released from the supporting bracket*, and the shaft being displaceable from its operative position on release of its second end by flexure of the flexible bushing, thereby to permit access to the light source, Cornell explicitly teaches frames legs (26, 28) providing support means for a horizontal shaft (32). In addition, Cornell teaches one end (second end) of the shaft (32) being journaled in a suitable bearing (36) in support leg (28) and the other end (first end) being coupled to a shaft (38) of motor (34) extending inwardly through support leg (28) towards support leg (26). Cornell further teach the motor shaft (38) being coupled to the driven shaft (32) by a resilient sleeve (40) of rubber or the like, making it an easy matter *to disconnect* the shaft when desired

without the use of any tools. Clearly, Cornell teaches the removal of shaft (32) by *disconnecting* driven shaft (32) from the /flexible bushing/resilient member (40) to provide a means for removal of the driven shaft (32) from bearing (36) or one would not provide for simplicity of assembly or providing the ability of making repairs or replacements of parts below the driven shaft (32) of the apparatus (i.e. bulb 16). Therefore, the O'Neill'073 in view of Cornell driven shaft with a resilient member on one end of the driven shaft structure fully meets "the shaft is driveably connected at a first end thereof via a flexible bushing to a drive means operative to rotate the shaft and is releasably retained at a second end thereof in a supporting bracket, *the first end of the shaft being configured to be retained by the flexible bushing when the second end is released from the supporting bracket*, and the shaft being displaceable from its operative position on release of its second end by flexure of the flexible bushing, thereby to permit access to the light source" given it broadest reasonable interpretation.

16. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill (United Kingdom Publication No. 2298073A) in view of Cornell (U.S. Patent No. 2,984,032) as applied to claim 10 above, and further in view of Conroy et al. (U.S. Patent No. 3,742,189).

O'Neill'073 in view of Cornell discloses all of the limitations, as previously set forth, except for a mounting means for mounting the flame effect fire on a wall.

However, simulated heated fireplace assembly comprising mounting means for mounting simulated heated fireplace assembly on a wall is known in the art. Conroy et al. teach an electric heated simulated fireplace assembly (12) that may be adapted for mounting within a larger receptacle which in turn is then mounted to the wall of a room; the corner thereof (column 4, lines 52-62) to provide a simulated fireplace assembly that may be used in many different rooms in a residence as well as in commercial establishments, thereby providing a more versatile apparatus to enhance and give pleasant atmosphere to the surroundings (column 1, lines 9-27). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the structure of the O'Neill'073 in view of Cornell with a wall mounting receptacle, as taught by Conroy et al., in order to provide a simulated fireplace assembly that may be used in many different rooms in a residence as well as in commercial establishments, thereby providing a more versatile apparatus to enhance and give pleasant atmosphere to the surroundings.

17. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill (United Kingdom Publication No. 2298073A) in view of Cornell (U.S. Patent No. 2,984,032) as applied to claim 10 above, and further in view of MacPherson et al. (U.S. Patent No. 6,269,567).

O'Neill'073 in view of Cornell discloses all of the limitations, as previously set forth, except for the supporting bracket has a slot therein adjacent the second end of the

shaft and the second end of the shaft is released from the supporting bracket via the slot.

However, a supporting bracket having a slot therein adjacent the second end of a shaft is known in the art. MacPherson et al., for example, teach a rod (81) being supported at one end in corresponding recesses (84) defined in a vertical support arm (86) (column 4, lines 38-42; see Figure 3). It is known in the art that such recesses are provided to easily remove the rod when necessary. It would have further been obvious to one of ordinary skill in the art at the time of the invention was made to modify O'Neill'073 in view of Cornell with the recesses provided in the supporting shaft of MacPherson in order to provide a means to easily remove the rod when necessary as is known in the art.

Prior Art

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,802,361 to Hatanaka is a teaching of heating apparatus in which the air inlet and the air outlet are at the bottom of the apparatus.

U.S. Patent No. 5,425,126 to Lee is another teaching of heating apparatus in which the air inlet and the air outlet are at the bottom of the apparatus.

U.S. Patent No. 6,034,354 to Hironaka is a teaching of a wall mounted apparatus comprising a heating element in which the air outlet is at the bottom of the apparatus directing the air flow away from the wall.

Remarks

19. With respect to applicant reply/argument that Cornell is not equivalent to the flexible bushing recited in claim 9, the examiner respectfully disagrees. It is important to note that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In that light, claim 9 recites "the supporting bracket having a slot therein adjacent the second end of the shaft, the first end of the shaft being configured to be retained by the flexible bushing when the second end is released from the supporting bracket via the slot in the supporting bracket, and the shaft being displaceable from its operative position on release of its second end by flexure of the flexible bushing, thereby to permit access to the light source". The term "configured to" is deemed functional language and if a reference has the structure and the controllability to perform the operation, the reference is complete as detail, please refer to MPEP §2111.04, ("Claim scope is not limited by claim language that does not limit a claim to a particular structure"; i.e. usage of "adapted to"; "configured to" being an equivalent is definition).

Cornell explicitly teaches an artificial fireplace apparatus comprising a drive means comprising a motor (34) mounted to a drive shaft (38), which extends inwardly through support leg (28). In addition, Cornell teaches a main shaft (32) being coupled to the drive shaft (38) on a first end via a resilient sleeve (40) made of rubber or the like

with the shaft (32) extending through the apparatus to a second end in a support bracket being held by a suitable bearing (36). Cornell further teaches that such a configuration provides a simple assembly, making it possible to make any necessary repairs or replacements (column 2, lines 33-43), thereby allowing the shaft to be disconnected without the use of any tools and easing maintenance thereof.

In addition, MacPherson et al. teach a rod (81) being supported at one end in corresponding recesses (84) defined in a vertical support arm (86) (column 4, lines 38-42; see Figure 3). It is known in the art that such recesses are provided to easily remove the rod when necessary.

The structure of Cornell teaches the main shaft (32) being coupled to the drive shaft (38) on the first end via a resilient sleeve (40) made of rubber or the like with the shaft (32) extending through the apparatus to a second end in a support bracket being held by a suitable bearing (36). The first end will be retained by the flexible bushing (40) when the main shaft (32) is attached to the support bracket and the first end will be retained by the flexible bushing (40) when the main shaft (32) is not attached to the support bracket.

The structure of MacPherson et al. provides recesses (84) in the vertical support arms (86) for supporting the rod (81) in a fireplace simulator.

The examiner has provided applicant with a clear *prima facie* case of obviousness as set forth in MPEP § 2143 with the combination of Cornell in view of MacPherson. Therefore, Cornell in view of MacPherson fully meets "the first end of the shaft being configured to be retained by the flexible bushing when the second end is

released from the supporting bracket via the slot in the supporting bracket, and the shaft being displaceable from its operative position on release of its second end by flexure of the flexible bushing, thereby to permit access to the light source" given its broadest reasonable interpretation.

20. With respect to applicant's reply/argument that O'Niell'073 and/or Cornell do not disclose or render obvious the recitations in claim 10, the examiner respectfully disagrees. The term "configured to" is deemed functional language and if a reference has the structure and the controllability to perform the operation, the reference is complete as detail, please refer to MPEP §2111.04, ("Claim scope is not limited by claim language that does not limit a claim to a particular structure"; i.e. usage of "adapted to"; "configured to" being an equivalent is definition).

As set forth above, Cornell explicitly teaches an artificial fireplace apparatus comprising a drive means comprising a motor (34) mounted to a drive shaft (38), which extends inwardly through support leg (28). In addition, Cornell teaches a main shaft (32) being coupled to the drive shaft (38) on a first end via a resilient sleeve (40) made of rubber or the like with the shaft (32) extending through the apparatus to a second end in a support bracket being held by a suitable bearing (36). Cornell further teaches that such a configuration provides a simple assembly, making it possible to make any necessary repairs or replacements (column 2, lines 33-43), thereby allowing the shaft to be disconnected without the use of any tools and easing maintenance thereof. Cornell is clearly concerned with "disconnecting the shaft" (column 2, lines 42-43). Furthermore,

Cornell is concerned with providing a mechanism to simply assemble the apparatus and make repairs and replace parts as necessary that would include the shaft (32). The examiner asserts that since Cornell is concerned with the simplicity of assembly as well as making repair and replacing necessary parts easy, that the second end seated in bearing (36) in support leg (26) would be configured for removal from the bearing (36) when the resilient sleeve (4) is flexed since the bearing (36) is just a rotating support placed between the support leg (26) and the main shaft (32) to allow them to move easily as well as there being no disclosure to a locking mechanism with respect to the bearing (36)/support leg (26) configuration.

The examiner has provided applicant with a clear *prima facie* case of obviousness as set forth in MPEP § 2143. Therefore, Cornell fully meets "the shaft is driveably connected at a first end thereof via a flexible bushing to a drive means operative to rotate the shaft and is releasably retained at a second end thereof in a supporting bracket, the first end of the shaft being configured to be retained by the flexible bushing when the second end is released from the supporting bracket and the shaft being displaceable from its operative position on release of its second end by flexure of the flexible bushing, thereby to permit access to the light source" given its broadest reasonable interpretation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN J. RALIS whose telephone number is (571)272-6227. The examiner can normally be reached on Monday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SJR
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